

**Ocean Exploration Initiative
Educational Program Plan: 2002****Objectives of the Ocean Exploration Initiative (OEI) Educational Programs:**

During its five-year timeline, the OEI will strive to:

- Foster public awareness and interest in ocean issues, with special emphasis on elevating people's understanding of the value and importance of ocean resources.
- Target an international audience for OEI educational initiatives.
- Foster the integration of ocean studies into school curricula by directly involving teachers and students in OEI activities through educational materials, workshops and the Web.
- Encourage the integration of science and education, focusing on ocean frontiers, the use of technology for greater outreach, and the promotion of new tools (e.g., multi-media interactive programs) for use in education.
- Promote partnerships to leverage OEI funding and funding shortfalls in marine-education priorities.

OEI Education Advisory Committee:

OEI will enlist the aid of education specialists from around the world to assist in accomplishing the OEI objectives. Members will include teachers, education program managers, and education and outreach specialists from ocean programs. Their purpose will be to advise the OEI program management on 1) development of the OEI education plan and 2) identify opportunities for education activities and partnerships.

OEI Education Plan:*Background*

In April 1998, National Geographic Society, in partnership with NOAA, launched the 5 year Sustainable Seas Expeditions (SSE). One of the SSE's primary goals is to mount an intensive public education campaign, using the drama of path-breaking exploration and the compelling visual evidence of high-quality photographs and videotapes to arouse, astonish, and engage regional and national interest in the marine sanctuaries. To achieve this goal, the Society has worked closely with NOAA to establish a team to develop education programs based on the results of the Expedition missions and also to address the national need for increased marine education for the public and K-12 students. SSE has been wildly successful in its education and outreach goals, reaching millions of people during its first year.

One of the biggest challenges facing efforts to support marine education is that the National Science Standards at the K-12 level do not include the oceans and coasts as required areas of study. This omission has resulted in a dearth of marine science textbooks and little incentive for teachers to routinely include marine science education in their classes. Paradoxically, studying the oceans is, by definition, an inherently interdisciplinary process that integrates the physical and natural sciences with environmental, social, cultural, historical, and policy issues. The ocean science community is also poised to involve

students and their teachers in a wealth of new information and a variety of cutting-edge technologies.

The challenge, however, is communicating this information to the education community in an effective and meaningful way. Teachers can be easily overwhelmed by the quantities of data available and may not have the time or expertise to use raw data sets that are available on the Web. Just as SSE has successfully done, OEI will help bridge this gap by bringing attention to the importance of teaching marine education and providing a portal to ocean science data sets through its exploration activities. Just as importantly, OEI will increase awareness of the oceans as a central feature of scientific literacy and development of a conservation ethic.

The purpose of this plan is to provide a framework for ensuring that OEI exploration activities are effectively presented to educators and the public, and to highlight opportunities for further collaboration in education.

Education Plan Elements

OEI proposes to focus its education program on four primary program elements, including development of:

- teaching materials
- teacher professional opportunities
- student programs
- informal education.

Development of teacher materials will be based on multi-media class room materials targeting the widest audience possible. Teacher professional development will provide the instruction support necessary for teachers to take advantage of these new materials. Student programs will provide hands-on activities for students to learn about the ocean and become participants in OEI and its field missions. Informal education will use the enormous reach of NOAA through the Internet, exhibits, family activities, public programs, books, television stories and magazine articles as the public outlet for OEI's ocean stewardship message and mission findings.

Partnerships

The overarching goal of the OEI education program is to foster increased public awareness and understanding of the importance of ocean resources and environments through improved marine education. This is an enormous undertaking that will require collaboration with many different partners, including the NGS Alliances, National Science Teachers Association (NSTA), National Marine Educators Association (NMEA), Consortium for Oceanographic Research and Education (CORE), National Ocean Partnership Program (NOPP), National Science Foundation (NSF), NASA, Coastal America, JASON Foundation for Education, and others.

Summary

During the course of five years, OEI will provide the opportunity to explore areas of the planet never seen before, using innovative technologies and to bring the excitement of these expeditions and their findings to the public and to schools across the country. Resulting materials will provide a backbone for bringing the ocean into classrooms at a national level,

and linking the ocean to national and state instruction standards that will lead to an informed public and the scientists of tomorrow.